INSTALLATION/OPERATION



by Schneider Electric

KBD300USBKIT



For use with DX4500/DX4600 DVRs and DS ControlPoint Software

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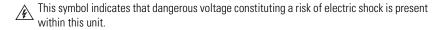
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Important Safety Instructions

- 1 Read these instructions
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one blade wider than the other. A grounding plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the points where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Only use with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
- 14. Unplug the apparatus during lightning storms or when unused for long periods of time.
- 15. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases shall be placed on the apparatus.
- 16. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- 17. Installation should be done only by qualified personnel and conform to all local codes.
- 18. Unless this unit is specifically marked as NEMA Type 3, 3R, 3S, 4, 4X, 6, or 6P enclosure, it is designed for indoor use only and it must not be installed where exposed to rain and moisture.
- 19. Only use installation methods and materials capable of supporting four times the maximum specified load.
- 20. Only use replacement parts recommended by Pelco.
- 21. Avoid touching the screen directly with your fingers as the oils from your skin may be difficult to remove from the LCD.
- 22. Do not apply direct pressure on the screen.
- 23. Keep the monitor in a dust-free environment and away from strong electromagnetic fields.
- 24. Do not use attachments, such as mounts, that are not recommended by Pelco. They may be hazardous.
- 25. Do not place the monitor on an unstable stand, bracket, or mount. The unit may fall, causing serious damage to the unit or injury to a person. Only use mounts recommended by Pelco.
- 26. A CCC-approved power cord must be used to power this equipment when used in China.
- 27. A still image displayed too long may cause permanent damage to the LCD panel. Watching the LCD in 4:3 format for a long time may leave traces of borders displayed on the left, right and center of the screen caused by the difference of light emission on the screen. Using a camera or a system may cause a similar effect to the screen. Damages caused by this effect are not covered by the warranty.

The product and/or manual may bear the following marks:



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit



RISK OF ELECTRIC SHOCK.
DO NOT OPEN.

Description

The KBD300USBKIT is a required accessory if you want to interface the KBD300A keyboard to the DX4500/DX4600 Series digital video recorder (DVR). The KBD300USBKIT is also required to control certain functions of the Digital Sentry® (DS) ControlPoint software.

This manual describes how to install and operate the KBD300A with the DX4500/DX4600 DVR and DS ControlPoint.

DX4500/DX4600 SERIES DIGITAL VIDEO RECORDER

The DX4500/DX4600 can be updated to support the optional KBD300A keyboard. You can use the keyboard to operate PTZ cameras connected to the unit.

NOTE: DX4500/DX4600 version 1.2 DVR hardware cannot be updated to support the Pelco C (Coaxitron®) protocol feature.

DS CONTROLPOINT

Pelco's KBD300A keyboards can be used to control certain functions of the DS ControlPoint software. To use a KBD300A with DS ControlPoint, your hardware and software must meet the following requirements:

- KBD300A version 5.7 or later
- DS ControlPoint version 6.7.1.99 or later
- Available serial port (COM) on the computer running DS ControlPoint

MODELS

KBD300USBKIT KBD300A adapter (120 VAC) KBD300USBKIT-X KBD300A adapter (230 VAC)

PARTS LIST

Oty Description

- 1 USB to RS-232C cable
- 1 PV140 RS-232 to RS-422 converter kit
- 1 KBDKIT/KBDKIT-X wiring kit (includes two RJ-45 wall blocks and a 120 VAC/230 VAC to 12 VAC transformer)
- 1 PV140 power supply (not used)

Installation

DX4500/DX4600 SERIES DVR

DX4500/DX4600 DVRs now support the use of the KBD300A keyboard. You must install the KBD300USBKIT to connect a KBD300A keyboard to a DX4500/DX4600.

NOTES:

- DX4500/DX4600 version 1.2 DVRs do not support Pelco C (Coaxitron) protocol, regardless of software version.
- The unit's firmware and application software must be updated to version 1.3 before connecting or using a KBD300A keyboard (refer to *About Software Updates for the DX4500/DX4600* on page 9).

CONNECTING TO A DX4500/DX4600

Figure 1 shows how to connect the keyboard to the DX4500/DX4600.

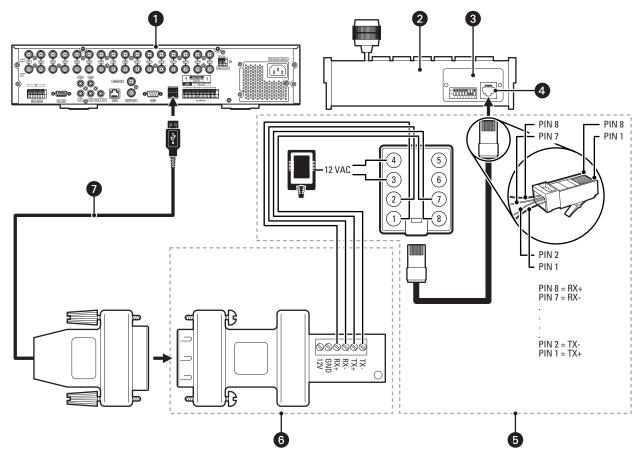


Figure 1. DX4500/DX4600 Wiring Diagram

- **WARNING:** Do not connect the included PV140 power supply. The PV140 receives power from the DX4500/DX4600 and does not need a separate power supply.
- 1 DX4500/DX4600 Series DVR: Contains one USB 2.0 connector on the front panel and two USB 2.0 connectors on the back panel.
- **EXECUTE: KBD300A Keyboard:** Controls PTZ cameras connected to the DX4500/DX44600. A 25-foot (7.6 m) RJ-45 cable is supplied with the keyboard. The RJ-45 cable connects the terminal block to the KBD300A keyboard.

3 Keyboard Data and DIP Switch Cover: Contains the keyboard configuration switches. Use the switches to configure the keyboard address and operational mode (refer to Figure 2).

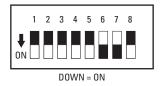


Figure 2. KBD300A Switch Settings: DX4500/DX4600 Operation

- **RJ-45 Connector:** Connects the KBD300A to the terminal block using the RJ-45 cable.
- **SKBDKIT/KBDKIT-X:** The keyboard wiring kit that provides power for the KBD300A keyboard and interfaces the keyboard to the PV140. The kit includes two RJ-45 wall blocks and a 120 VAC/230 VAC to 12 VAC transformer.

Table A. RJ-45 Wall Block Pinouts

Pin	Signal	Pin	Signal
1	TX+	5	GND
2	TX-	6	N/A
3	12 VAC/DC	7	RX-
4	Nonpolar	8	RX+

6 PV140: A user-supplied interconnect cable (shielded twisted pairs) is required to connect the PV140 to the terminal block.

Table B. PV140 to RJ-45 Wall Block Connections

	RJ-45 W	all Block
PV140 Signal	To Pin	Signal
RX+	1	TX+
RX-	2	TX-
TX-	7	RX-
TX+	8	RX+

USB to RS-232 Cable: A USB to RS-232 converter cable (with a DB9 male connector) is included with the KBD300USBKIT. The cable connects the PV140 to the DX4500/DX4600.

ABOUT SOFTWARE UPDATES FOR THE DX4500/DX4600

Before you begin updating your DX4500/DX4600, be sure to observe the following information:

- Your current DVR configuration settings are not deleted or replaced during the update process.
- Download the required update files from www.pelco.com.
- Your unit might require more than one update. Refer to the DX4500/DX4600 product label for the unit's version (1.2, V1.3, or A1.3). Then refer to Table C on page 10 for the required update files and procedures.
- You must use a USB drive to update the DX4500/DX4600 firmware and software. The update file must be the only file on the USB drive, and
 it must be located in the USB drive root directory.

Table C. DX4500/DX4600 Update Paths

Version	DX4500/DX4600 Description	Update Files
1.2	Version 1.2 hardware cannot be updated to support Pelco C (Coaxitron) protocol. Pelco D and Pelco P protocols must be used to operate PTZ cameras.	 Version 1.3 kernel Version 1.3 firmware
	Units that were installed or shipped prior to the version 1.3 release are configured with version 1.2 firmware, kernel, and hardware. You must install the following updates:	Refer to <i>Updating the Firmware and Kernel</i> .
	Version 1.3 firmware: Includes new features except KBD300A support.	
	Version 1.3 kernel: Supports the optional KBD300A keyboard.	
V1.3	Version 1.2 hardware cannot be updated to support Pelco C (Coaxitron) protocol. Pelco D and Pelco P protocols must be used to operate PTZ cameras.	Version 1.3 kernel
	Units that shipped after the version 1.3 software release are configured with the version 1.3 firmware and kernel on version 1.2 hardware. You must install the following updates:	Refer to <i>Updating the Firmware and Kernel.</i>
	 Version 1.3 firmware: Installed at the factory (includes new features except KBD300A support). 	
	 Version 1.3 kernel: A required field update. Supports the optional KBD300A keyboard. 	
A1.3	Version 1.3 hardware supports the Pelco C (Coaxitron) protocol to operate PTZ cameras over coaxial cable. It also supports Pelco D and Pelco P protocols.	Updates not required
	DX4500/DX4600 version 1.3 DVRs are factory-configured with the following software:	
	Version 1.3 firmware: Installed at the factory.	
	Version 1.3 kernel: Installed at the factory.	

Downloading Software Updates

- 1. Go to http://www.pelco.com/software/downloads/dvr/and locate the information in the "DX4500 and DX4600 Series" section of the page.
- 2. Download the update software and copy it to the root directory of an empty USB drive.

Updating the Firmware and Kernel

- 1. Log on to the DVR at the administrator level. The DVR application window and toolbar appear.
- 2. Insert the USB device.
- 3. Click the Setup icon . By default, the Camera menu is selected.
- 4. Click the System menu.

5. From the System menu, click Update. The Update settings box appears (refer to Figure 3).

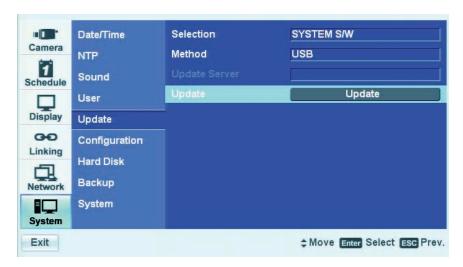


Figure 3. Update Settings

- 6. Click the Update property. The Update settings box changes color.
- 7. On the front panel, press the SHIFT button, and then press the SET button. The Update dialog box appears. "MTD by default" appears in the image text box.
- 8. Click ALL AVAILABLE, and then click OK (refer to Figure 4). When the system locates the update file on the USB drive, the system updates the firmware, software, and kernel. After the update process is complete, you are prompted to restart the DX4500/DX4600.



Figure 4. Update Dialog Box

- 9. Click OK. The unit restarts and is ready for you to update the application software.
- 10. If necessary, repeat steps 1 through 9 to install more than one firmware update.

NOTES:

- Your unit might require more than one update to support the KBD300A. Refer to Table C on page 10 for the required update files.
- If the system cannot find a valid update file in the root directory, the following message appears: "Cannot find valid update file." Make sure the update file is in the root directory of the USB drive, and then repeat steps 7 and 8.

Updating the Application Software

- 1. Log on to the DVR at the administrator level. The DVR application window and toolbar appear.
- 2. Insert the USB device.
- 3. Click the Setup icon . By default, the Camera menu is selected.
- 4. Click the System menu.
- 5. From the System menu, click Update. The Update settings box appears.
- 6. Click the Method settings box to display USB.
- 7. Click the Update property. The Update settings box changes color.
- 8. Click the Update settings box. The following message appears: "Do you want to update the DVR S/W?"

9. Click OK. When the system locates the software update file on the USB drive, the system installs the application software. After the update process is complete, you are prompted to restart the DX4500/DX4600.



Figure 5. Update Dialog Box

- 10. Click OK. The unit restarts and is ready for operation.
- 11. If necessary, repeat steps 1 through 10 to install more than one firmware update.

NOTES:

- Your unit might require more than one update to support the KBD300A. Refer to Table C on page 10 for the required update files.
- If the system cannot find a valid update file in the root directory, the following message appears: "Cannot find valid update file." Make sure the update file is in the root directory of the USB drive, and then repeat steps 9 and 10.

DS CONTROLPOINT

DS ControlPoint now supports the use of the KBD300A keyboard. You must install the KBD300USBKIT to connect a KBD300A keyboard to a computer that is running DS ControlPoint software.

For information on using the KBD300A with DS ControlPoint, refer to Keyboard Features and Functions with DS ControlPoint on page 17.

CONNECTING TO DS CONTROLPOINT

Figure 6 shows how to connect the keyboard to the computer.

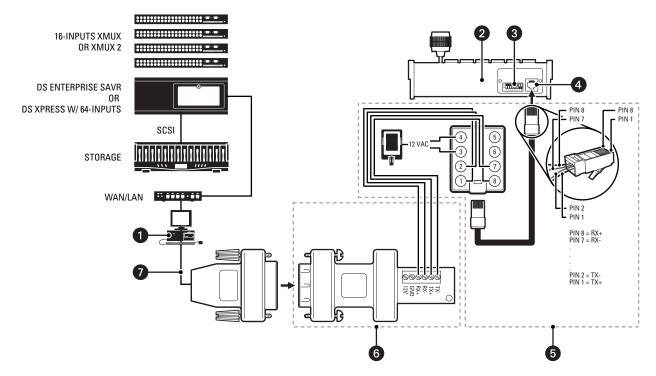


Figure 6. DS ControlPoint Wiring Diagram

- **WARNING:** Do not connect the included PV140 power supply. The PV140 receives power from the computer and does not need a separate power supply.
- **Computer:** The computer on which DS ControlPoint is running.
- **(2) KBD300A Keyboard:** Controls PTZ cameras connected to the computer. A 25-foot (7.6 m) RJ-45 cable is supplied with the keyboard. The RJ-45 connects the terminal block to the KBD300A keyboard.
- **3 Keyboard Data and DIP Switch Cover:** Contains the keyboard configuration switches. Use the switches to configure the keyboard address and operational mode (refer to Figure 7).



Figure 7. KBD300A Switch Settings: DS ControlPoint Operation

- **RJ-45 Connector:** Connects the KBD300A to the terminal block using the RJ-45 cable.
- **SECOND INTEGRAL SECOND INTEGR**

Table D. RJ-45 Wall Block Pinouts

Pin	Signal	Pin	Signal
1	TX+	5	GND
2	TX-	6	N/A
3	12 VAC/DC	7	RX-
4	Nonpolar	8	RX+

6 PV140: A user-supplied interconnect cable (shielded twisted pair) is required to connect the PV140 to the terminal block.

Table E. PV140 to RJ-45 Wall Block Connections

	RJ-45 W	all Block
PV140 Signal	To Pin	Signal
RX+	1	TX+
RX-	2	TX-
TX-	7	RX-
TX+	8	RX+

USB to RS-232 Cable: A USB to RS-232 converter cable (with a DB9 male connector) is included with the KBD300USBKIT. The cable connects the PV140 to the computer.

INSTALLING THE KBD300A

To install the KBD300A keyboard:

1. Attach the KBDKIT power supply to the RJ-45 wall block, but do not connect the power supply to a power source. Refer to Figure 1 on page 8 and Table A on page 9 for information about setting up the RJ-45 wall block for a DX4500/DX4600. Refer to Figure 6 on page 12 and Table D on page 13 for more information about setting up the RJ-45 wall block for DS ControlPoint.

NOTE: Do not connect the PV140 power supply. The PV140 receives power from the DX4500/DX4600 or the computer (depending on the installation) and does not need a separate power supply.

- 2. Wire the RX-, RX+, TX-, and TX+ terminals from the PV140 to the RJ-45 wall block using a user-supplied interconnect cable (shielded twisted pair). Refer to Figure 1 on page 8 and Table B on page 9 for correct wiring information for DX4500/DX4600. Refer to Figure 6 on page 12 and Table E on page 13 for correct wiring information for DS ControlPoint.
- 3. Connect the RJ-45 wall block power supply to a power source.
- 4. Use the USB to RS-232 converter cable to connect the PV140 to the computer.
- 5. Set up the KBD300A operation mode and address:
 - a. On the KBD300A back panel, remove the two Phillips screws and the DIP switch cover.
 - b. Set the keyboard to operate in CM6700 ASCII mode. Set switch 7 to the ON position (down) and set switch 8 to the OFF position (up).
 - c. Set switches 1 to 5 to the OFF position (up) and set switch 6 to either the ON or OFF position.
 - d. Reinstall the DIP switch cover.
- 6. Connect one end of the data cable to the RJ-45 wall block and the other end to the keyboard.

Operation

KEYBOARD OVERVIEW

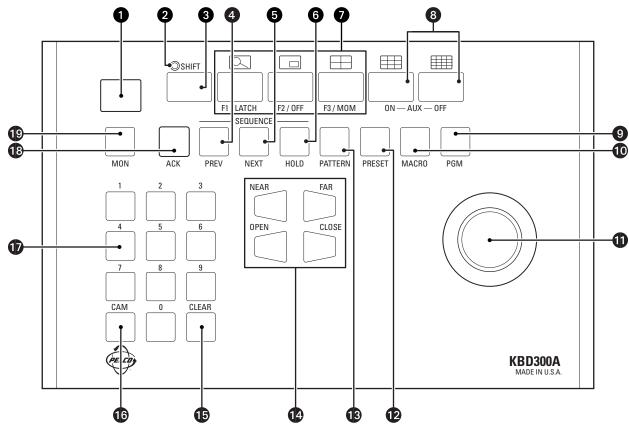


Figure 8. KBD300A Keyboard Overview

- 1 LED display
- 2 Shift Key LED (on/off indicator)
- 3 SHIFT
- 4 PREV (previous sequence)
- 5 NEXT (next sequence)
- 6 HOLD (hold sequence)
- 7 F1/LATCH, F2/OFF, F3/MOM and Multiplexer Display: The auxiliary function control keys. When SHIFT is on (glows), the keys control the multiplexer display: full-screen view, single-pane view (1 x 1), and 4-pane view (2 x 2).
- 8 AUX ON/OFF and Multiplexer Display: The receiver auxiliary control keys. When Shift is on (glows), the keys control the multiplexer display: 9-pane view (3 x 3) and 16-pane view (4 x4).
- **9** PGM (program sequence)

- 10 MACRO (macro sequence)
- Joystick
- 12 PRESET
- 13 PATTERN
- 14 NEAR/FAR and OPEN/CLOSE: The focus and iris control keys.
- 15 CLEAR
- 16 CAM (camera selection)
- 17 Numeric Keypad
- **18** ACK (acknowledge)
- 19 MON (monitor selection)

KEYBOARD FEATURES AND FUNCTIONS WITH DX4500/DX4600

The KBD300A provides the following features for use with the DX4500/DX4600 Series DVR.

JOYSTICK

When the SHIFT LED is off (not lit), you can perform the following camera operations:

- Control the camera's PTZ function.
 - Twist the joystick clockwise to zoom in and counterclockwise to zoom out.
 - Move the joystick to stop a pattern.
- Move the cursor in the on-screen camera menu.
 - Menu tree: Moves the cursor up and down through the on-screen camera menu.
 - Parameter selection: Sequences through the parameter choices.

When the SHIFT LED is on (glows), use the joystick to easily select a camera pane.

NEAR/FAR AND OPEN/CLOSE

The NEAR/FAR and OPEN/CLOSE keys allow you to control the lens and navigate the on-screen camera menu.

When the SHIFT LED is off (not lit), you can view video in the camera pane with the following commands:

- **NEAR/FAR:** Press and hold these keys to zoom the lens in or out.
- OPEN/CLOSE: Press and hold these keys to open or close the iris to lighten or darken the video.

While displaying the on-screen menu, you can use the following commands:

- NEAR/FAR: Quickly press and release these keys to move the cursor up or down through the camera menu.
- OPEN/CLOSE: Quickly press and release the OPEN key to select a menu item; quickly press and release the CLOSE key to move the cursor
 to the Exit command.

CAM

When the SHIFT LED is on (glows), press a number and the CAM key to assign the selected camera to the first view pane. The remaining view panes are positioned in numerical order. For example, if channel 06 is the first view pane, channel 07 is displayed in the second view pane, and so forth.

PRESET

The PRESET key allows you to call up and configure camera presets. When the SHIFT LED is off (not lit), use the numeric keypad and the PRESET key to perform the following commands:

- Press and release a number, and then quickly press PRESET to move the camera to the configured preset position.
- Press and release a number, and then press and hold PRESET for two seconds to program the current camera position to a supported preset number. Preset 95 displays the camera menu.

For more information about camera presets, refer to the documentation supplied with the camera.

PATTERN

The PATTERN key allows you to run both long and short camera patterns.

- Run a pattern: When the SHIFT LED is off (not lit), press and release a number, and then quickly press PATTERN to run a selected program. The DX4500/DX4600 supports up to four unique PTZ patterns.
- **Program a pattern:** When the SHIFT LED is off (not lit), press and release a number, and then press and hold PATTERN for two seconds to start the pattern recording mode.

For more information about camera presets, refer to the documentation supplied with the camera.

ACK

When the SHIFT LED off (not lit), press the ACK key to stop the pattern recording mode.

F1/LATCH, F2/OFF, F3/MOM, AND AUX ON/OFF

When the SHIFT LED is off (not lit), press a number and the AUX ON key to control the auxiliary functions; press a number and the AUX OFF key to control the receiver auxiliaries.

MULTIPLEXER DISPLAY

When the SHIFT LED is on (glows), press one of the following keys to customize how video is displayed in the application window.

Full-screen view
Single-pane view (1 x 1)
4-pane view (2 x 2)
9-pane view (3 x 3)
16-pane view (4 x 4)

KEYBOARD FEATURES AND FUNCTIONS WITH DS CONTROLPOINT

Table F. Keyboard Features and Functions with DS ControlPoint

Keyboard Features	Corresponding DS ControlPoint Functions
SHIFT + ZOOM	Full-screen view
SHIFT + F2/OFF	Single-pane view (1 x 1)
SHIFT + F3/MOM	4-pane view (2 x 2)
SHIFT + AUX ON	9-pane view (3 x 3)
SHIFT + AUX OFF	16-pane view (4 x 4)
ACK	Enters PTZ mode
ACK + joystick	Controls the pan, tilt, and zoom on selected video window
NEAR and FAR	Focuses the camera lens
OPEN and CLOSE	Controls the iris to lighten or darken the vide.
Numeric Keypad and PRESET	Calls up camera presets
CAM	Enters the video window navigation mode
CAM + joystick	Navigates the video windows
MON	Associates a selected camera to a selected video window
MON + keypad	Associates a camera to a specific video window (numbered left to right, top to bottom)

PRODUCT WARRANTY AND RETURN INFORMATION

WARRANTY

Pelco will repair or replace, without charge, any merchandise proved defective in material or workmanship **for a period of one year** after the date of shipment.

Exceptions to this warranty are as noted below:

- Five years:
 - Fiber optic products
 - TW3000 Series unshielded twisted pair (UTP) transmission products
 - CC3701H-2, CC3701H-2X, CC3751H-2, CC3651H-2X, MC3651H-2, and MC3651H-2X camera models
- Three years:
 - Pelco-designed fixed network cameras and network dome cameras with Sarix™ technology.
 - Pelco-branded fixed camera models (CCC1390H Series, C10DN Series, C10CH Series, and IP3701H Series)
 - EH1500 Series enclosures
 - Spectra® IV products (including Spectra IV IP)
 - Camclosure® Series (IS, ICS, IP) integrated camera systems
 - DX Series digital video recorders, DVR5100 Series digital video recorders, Digital Sentry® Series hardware products, DVX Series digital video recorders, and NVR300 Series network video recorders
 - Endura® Series distributed network-based video products
 - Genex® Series products (multiplexers, server, and keyboard)
 - PMCL200/300/400 Series LCD monitors
- Two years:
 - Standard varifocal, fixed focal, and motorized zoom lenses
 - DF5/DF8 Series fixed dome products
 - Legacy[®] Series integrated positioning systems
 - Spectra III[™], Spectra Mini, Spectra Mini IP, Esprit[®], ExSite[®], and PS20 scanners, including when used in continuous motion applications.
 - Esprit Ti and TI2500 Series thermal imaging products
 - Esprit and WW5700 Series window wiper (excluding wiper blades).
 - CM6700/CM6800/CM9700 Series matrix
 - Digital Light Processing (DLP®) displays (except lamp and color wheel). The lamp and color wheel will be covered for a period of 90 days. The air filter is not covered under warranty.
 - Intelli-M® eIDC controllers
 - PMCL542F, PMCL547F, and PMCL552F FHD monitors
- One year:
 - Video cassette recorders (VCRs), except video heads. Video heads will be covered for a period of six months.

- · Six months:
 - All pan and tilts, scanners, or preset lenses used in continuous motion applications (preset scan, tour, and auto scan modes).

Pelco will warrant all replacement parts and repairs for 90 days from the date of Pelco shipment. All goods requiring warranty repair shall be sent freight prepaid to a Pelco designated location. Repairs made necessary by reason of misuse, alteration, normal wear, or accident are not covered under this warranty.

Pelco assumes no risk and shall be subject to no liability for damages or loss resulting from the specific use or application made of the Products. Pelco's liability for any claim, whether based on breach of contract, negligence, infringement of any rights of any party or product liability, relating to the Products shall not exceed the price paid by the Dealer to Pelco for such Products. In no event will Pelco be liable for any special, incidental, or consequential damages (including loss of use, loss of profit, and claims of third parties) however caused, whether by the negligence of Pelco or otherwise.

The above warranty provides the Dealer with specific legal rights. The Dealer may also have additional rights, which are subject to variation from state to state.

If a warranty repair is required, the Dealer must contact Pelco at (800) 289-9100 or (559) 292-1981 to obtain a Repair Authorization number (RA), and provide the following information:

- 1. Model and serial number
- 2. Date of shipment, P.O. number, sales order number, or Pelco invoice number
- 3. Details of the defect or problem

If there is a dispute regarding the warranty of a product that does not fall under the warranty conditions stated above, please include a written explanation with the product when returned.

Method of return shipment shall be the same or equal to the method by which the item was received by Pelco.

RETURNS

To expedite parts returned for repair or credit, please call Pelco at (800) 289-9100 or (559) 292-1981 to obtain an authorization number (CA number if returned for credit, and RA number if returned for repair) and designated return location.

All merchandise returned for credit may be subject to a 20 percent restocking and refurbishing charge.

Goods returned for repair or credit should be clearly identified with the assigned CA or RA number and freight should be prepaid.

10-1-09

The materials used in the manufacture of this document and its components are compliant to the requirements of Directive 2002/95/EC.



This equipment contains electrical or electronic components that must be recycled properly to comply with Directive 2002/96/EC of the European Union regarding the disposal of waste electrical and electronic equipment (WEEE). Contact your local dealer for procedures for recycling this equipment.

REVISION HISTORY

 Manual #
 Date
 Comments

 C2968M
 8/09
 Original version.

 C2968M-A
 10/09
 Revised the DIP switches in Figures 6 and 7, and the Product Warranty.

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